

In the Claims:

Please Cancel claims:

Claims 50,51 (canceled).

Text of all Claims:

Claims 1 – 35 (canceled)

Claim 36. (previously presented) A process for the evaluation of biological ligand binding and/or internalization using non-radioisotopic immunologically recognizable hapten-conjugated (labeled) ligands, consisting essentially of:

- A. Applying a ligand possessing an immunologically recognizable hapten group (hereafter referred to as labeled ligand) to a surface; in the presence or absence of the same ligand which does not possess the immunologically recognizable group (hereafter referred to as unlabeled ligand).
- B. Removing non-surface associated labeled and unlabeled ligand from the surface environment.
- C. Solubilizing surface-associated labeled and unlabeled ligand; with or without disruption of the surface.
- D. Optional: separating removed previously surface-associated labeled and unlabeled ligand ; with or without concomitantly separating known amounts of labeled ligand.

- E. Blotting of non-separated (C.) or separated (D.) solubilized previously surface associated labeled and unlabeled ligand onto a matrix; with or without concomitant blotting of known amounts of labeled ligand.
- F. Detecting all blot matrix-associated, previously surface associated, labeled ligand, using a specific label recognizing entity; followed by specifically detecting that entity.
- G. Optional: Determining the amount of blot matrix-associated previously surface-associated labeled ligand, by comparing its respective signals to the signals obtained from blot matrix-associated known amounts of labeled ligand.

Claim 37. (previously presented) The process as claimed in claim 36, wherein said surface is comprised of, but is not limited to, biological cells.

Claim 38. (previously presented) The process as claimed in claim 36, where the immunologically recognizable group is: comprised of, but is not limited to, fluorescein, biotin, rhodamine, digoxigenin, or any other antibody-recognizable entity; Wherein said group is described as a hapten; Wherein said group is described as associated with the ligand by the term "conjugated".

Claim 39 (previously presented) The process as claimed in claim 36, wherein said biological ligand is comprised of, but is not limited to, transferrin, concanavalin A, avidin, annexin V, insulin, or any other protein, carbohydrate, nucleic acid, or any other substance or material which can possess said immunologically recognizable group.

Claim 40. (previously presented) The process as claimed in claim 36, wherein previously surface-associated labeled and unlabeled ligand can be separated by a method comprised of, but not limited to: electrophoresis, wherein such electrophoresis methodology consists of , but is not limited to sodium dodecyl sulfate polyacrylamide electrophoresis (SDS-PAGE), or other form of de-naturing or non-denaturing electrophoresis.

Claim 41. (previously presented) The process as claimed in claim 36, wherein said blotting method is comprised of, but is not limited to, dot blotting, slot blotting, or Western blotting.

Claim 42. (previously presented) The process as claimed in claim 36, wherein said blotting matrix is comprised of of, but is not limited to, cellulose, nitrocellulose, polyvinylidenedifluoride (PVDF), or any other suitable blotting matrix.

Claim 43. (previously presented) The process as claimed in claim 36, wherein the detecting of blot matrix-associated labeled ligand is comprised of, but is not limited to, applying to the matrix an enzyme-conjugated or otherwise traceable anti-label antibody, followed by colorimetric, luminescent or other based detection of the antibody's enzyme or traceable entity.

Claim 44. (previously presented) The process as claimed in claim 36, where the detecting of blot matrix-associated labeled-ligand is comprised of, but is not limited to, application of an enzyme-conjugated or otherwise traceable avidin or streptavidin, followed by colorimetric, luminescent or other based detection of the avidin's or streptavidin's enzyme or traceable entity.

Claim 45. (previously presented) The process as claimed in claim 36, wherein the detecting of blot matrix-associated labeled material is comprised of, but is not limited to, applying to the matrix any sequence of antibodies; wherein the labeled ligand is detected, such as: applying an anti-label antibody, followed by applying an antibody to the anti-label antibody, followed by applying an antibody to the antibody to the anti-label antibody, etc.; with the final antibody possessing a conjugated enzyme or traceable entity. Wherein the amount of final antibody is determined by colorimetric, luminescent or other based detecting of the final antibody's enzyme or traceable entity.

Claim 46. (previously presented) The The process as claimed in claim 36, or 44, or 45, where the final antibody's traceable group is comprised of, but is not limited to, biotin; wherein the biotin is subsequently detected by applying to the blot matrix avidin or streptavidin possessing a conjugated enzyme or traceable entity. Wherein the amount of avidin or streptavidin is determined by colorimetric, luminescent or other based detecting of the avidin's or streptavidin's enzyme or traceable entity.

Claim 47. (previously presented) The process as claimed in claim 36, or 44, or 45, or 46, where the (final) antibody's, or avidin's, or streptavidin's conjugated enzyme is comprised of, but is not limited to, horseradish peroxidase, or alkaline phosphatase.

Claim 48. (previously presented) The process as claimed in claim 36, or 37, Wherein the exposure of said surface to the labeled ligand in varied conditions, followed by the same removing, separating, membrane binding, and detecting methods,

can be used to measure surface or cellular labeled ligand binding and/or internalization.

Claim 49. (previously presented) The process as claimed in claim 36, Wherein the specific binding of the labeled ligand to said surface can be determined by competitive binding with unlabeled ligand, followed by the same removing, separating, blotting, and detecting methods.

Claim 50 (canceled).

Claim 51 (canceled).